Utah Viral Hepatitis Comprehensive Plan

A Collaborative Agenda for Hepatitis Prevention, Treatment and Advocacy

2005 - 2007

Prepared by:
The Utah Department of Health for the
Viral Hepatitis Planning Grant Work Group
December 2004

This is a copy of the Utah Viral Hepatitis Comprehensive Plan produced by the Utah Department of Health, Bureau of Communicable Disease Control with the assistance of the Viral Hepatitis Planning Grant Work Committee. Additional copies may be obtained by contacting the Bureau of Communicable Disease Control Office at (801) 538-6096 or 1-800-537-1046.

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Bureau of Communicable Disease Control

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Shared Vision for the Utah Viral Hepatitis Comprehensive Plan

The prevention and control of viral hepatitis
through a coordinated local and statewide effort
that is supported by public and private partnerships.

Mission Statement for the Work Group Designing this Utah Viral Hepatitis Comprehensive Plan

The mission of the Viral Hepatitis Work Group is to:

- ***Improve the capacity for a comprehensive, culturally appropriate and systematic approach that will prevent the spread of viral hepatitis in Utah,***
- ***Limit the progression and complications of viral hepatitis related to liver disease,***
- ***Advocate for comprehensive and effective viral hepatitis policies and resources, and***
- ***Improve surveillance and data reporting, analysis and dissemination.***

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Acronyms and Definitions Used Within This Document

BMCH – Bureau of Maternal and Child Health

C&T – Counseling and Testing

CBO – Community Based Organization

CDC – Centers for Disease Control and Prevention

CHC – Community Health Center

CSTE – The Council of State and Territorial Epidemiologists

FTE – Full Time Employee

HAV – Hepatitis A Virus

HBV – Hepatitis B Virus

HCV – Hepatitis C Virus

IDU – Injection Drug Users

LHD – Local Health Departments

MSM – Men who have Sex with Men

OOE – Office of Epidemiology

OSHA – Occupational Safety and Health Administration

STD – Sexually Transmitted Disease

SWOT analysis – Strengths, Weaknesses, Opportunities, and Threats

Tx – Treatment

UPHL – Utah Public Health Laboratory

UDOH – Utah Department of Health

VFC – Vaccines for Children Program

EXECUTIVE SUMMARY

The Utah Viral Hepatitis Comprehensive Plan, developed by the Viral Hepatitis Steering Committee and Viral Hepatitis Work Group with the assistance of the Utah Department of Health, is the framework for the provision of care services during 2005 through 2007 for people living in Utah with viral hepatitis and for those at risk for viral hepatitis infection. The Utah Viral Hepatitis Comprehensive Plan is divided into three major sections: ***(1) Where we are: A description of Viral Hepatitis throughout Utah, (2) Where we are going and how we will get there,*** and ***(3) Monitoring our progress.***

The first section of the Utah Viral Hepatitis Comprehensive Plan describes the epidemic, addresses the state of the epidemic and identifies resources. The second section discusses the history of the epidemic in Utah; identifies community coordination and collaboration efforts; describes the Viral Hepatitis Steering Committee and Viral Hepatitis Work Group's operations, planning process, vision and mission statement; explains the SWOT analysis; identifies the goals and objectives for 2005 through 2007 and includes the Hepatitis C Strategic Plan. The third section discusses how the ongoing monitoring of the epidemic and Utah Viral Hepatitis Comprehensive Plan evaluation processes will occur.

SECTION A

Overview of the Epidemiologic Profile

Hepatitis A, B and C cases are reportable diseases in Utah per the Communicable Disease Rule, R386-702. Reported cases of hepatitis A have been declining steadily during the past four years. An effective vaccine and effective public health case management activities have provided the opportunity to substantially reduce disease incidence and transmission. The number of reported acute hepatitis B cases decreased from 1999 to 2001, but increased again over the following two years. While the incidence of hepatitis B has declined dramatically since implementation of special prevention and control strategies, high rates of disease continue among adults and high-risk groups. The number of reported hepatitis C cases in Utah declined from 1999 to 2000; however, the number of reported cases increased in 2002, before falling to a five-year low in 2003. The incidence of hepatitis C infections nationally has been declining since the late

1980s. Ongoing surveillance is needed to ensure that any new cases of hepatitis C are identified and investigated to determine the source of infection and to limit further spread of the virus.

Profile of the Inventory of Resources

Fiscal resources at this time are sporadic, with much of the money for viral hepatitis in Utah coming from one-time grants and special projects. These sources of funding are not consistent.

SECTION B

Utah's Response to the Epidemic

The number of reported cases of hepatitis A infections in Utah declined steadily from 2000 to 2003. The observable decrease in the number of cases may be due to improved vaccination programs and effective public health case management activities. In Utah, the number of reported acute hepatitis B cases decreased from 1999 to 2001, but increased during the following two years. The number of reported hepatitis C cases in Utah declined from 1999 to 2000; however, the number of reported cases increased in 2002, before falling to a five-year low in 2003.

The Planning Grant from the Council of State and Territorial Epidemiologists was awarded to six states, including Utah, for Hepatitis Program Building at the State level.

Currently, there is not a statewide viral hepatitis program supported by public and private partnerships. Creating this Viral Hepatitis Work Group is a primary effort to connect state and local health departments, community based organizations and health care professionals. Although this comprehensive plan is an initial attempt to create a statewide viral hepatitis program, there are activities occurring in three distinct areas of the Utah Department of Health currently. The creation of this plan will assist in these coordinating efforts. Various individuals and professionals represented on this Work Group committee have the responsibility of sharing what we have learned through this process with their local community partners.

Highlights of the Viral Hepatitis Steering Committee and Work Group's Vision and Mission Statement

The Viral Hepatitis Steering Committee and Work Group determined that all persons living with viral hepatitis should be the focus of the planning process. The vision statement for the Utah Viral Hepatitis Comprehensive Plan is:

> ***The prevention and control of viral hepatitis through a coordinated local and statewide effort that is supported by public and private partnerships.***

The components of the mission statement led the work group through the planning process as they established goals, objectives and activities for creating this plan.

> ***The mission statement of the Viral Hepatitis Work Group is to:***
>
> - ***Improve the capacity for a comprehensive, culturally appropriate and systematic approach that will prevent the spread of viral hepatitis in Utah,***
> - ***Limit the progression and complications of viral hepatitis related liver disease,***
> - ***Advocate for comprehensive and effective viral hepatitis policies and resources, and***
> - ***Improve surveillance and data reporting, analysis and dissemination.***

Summary of the SWOT Analysis

During March and April 2004, The Viral Hepatitis Steering Committee performed a SWOT Analysis (Strengths, Weaknesses, Opportunities & Threats) for viral hepatitis activities in Utah. The first phase of the analysis centered around brainstorming ideas for strengths, weaknesses, opportunities & threats for viral hepatitis in Utah. Once the brainstorming of ideas was complete, the Vital Hepatitis Steering Committee began to organize the SWOT chart into themes.

Summary of the Goals and Objectives for 2005 through 2007

Four smaller task groups made up of members from the Viral Hepatitis Work Group wrote the goals, objectives and activities. Each task group was assigned one of the four areas listed within the mission statement for the Viral Hepatitis Work Group. They are:

1. Viral Hepatitis Prevention

2. Viral Hepatitis Treatment and Care
3. Viral Hepatitis Advocacy
4. Viral Hepatitis Surveillance

Each small task group met independently and put together their own goals, objectives and activities. Each group was encouraged to refer to the SWOT analysis while forming goals and objectives.

SECTION C

Overview of the Evaluation Process

Evaluation is an essential element of the Utah Viral Hepatitis Comprehensive Plan. The Viral Hepatitis Steering Committee and Work Group and the Utah Department of Health, have the primary responsibility for monitoring the progress of the Utah Viral Hepatitis Comprehensive Plan's implementation. Throughout the next three years (2005-2007), these two entities will monitor the progress toward achievement of the goals and objectives, continue to gather information and update the Utah Viral Hepatitis Comprehensive Plan on a yearly basis, and evaluate the Viral Hepatitis Steering Committee and Work Group's planning process.

SECTION A

WHERE WE ARE: A DESCRIPTION OF VIRAL HEPATITIS THROUGHOUT UTAH

I. Description of Viral Hepatitis

Hepatitis A

Hepatitis A is a liver disease caused by the hepatitis A virus. Hepatitis A can affect anyone. In the United States, hepatitis A can occur in situations ranging from isolated cases of disease to widespread epidemics.

Good personal hygiene and proper sanitation can help prevent hepatitis A. Vaccines are also available for long-term prevention of hepatitis A virus infection in persons two years of age and older. Immune globulin is available for short-term prevention of hepatitis A virus infection in individuals of all ages.

See CDC Fact Sheet on Hepatitis A (Appendix A).

Hepatitis B

Hepatitis B is a serious disease caused by a virus that attacks the liver. The virus, which is called hepatitis B virus (HBV), can cause lifelong infection, cirrhosis (scarring) of the liver, liver cancer, liver failure, and death.

Hepatitis B vaccine is available for all age groups to prevent hepatitis B virus infection.

See CDC Fact Sheet on Hepatitis B (Appendix B).

Hepatitis C

Hepatitis C is a disease of the liver caused by the hepatitis C virus (HCV). You may be at risk for hepatitis C and should contact your medical care provider for a blood test if you:

- were notified that you received blood from a donor who later tested positive for hepatitis C.

- have ever injected drugs, even if you experimented a few times many years ago
- received a blood transfusion or solid organ transplant before July 1992
- were a recipient of clotting factor(s) made before 1987
- have ever been on long-term kidney dialysis
- have evidence of liver disease (e.g., persistently abnormal ALT levels)

See CDC Fact Sheet on Hepatitis C (Appendix C).

II. Epidemiological Profile

Overview of Viral Hepatitis Epidemiology in Utah

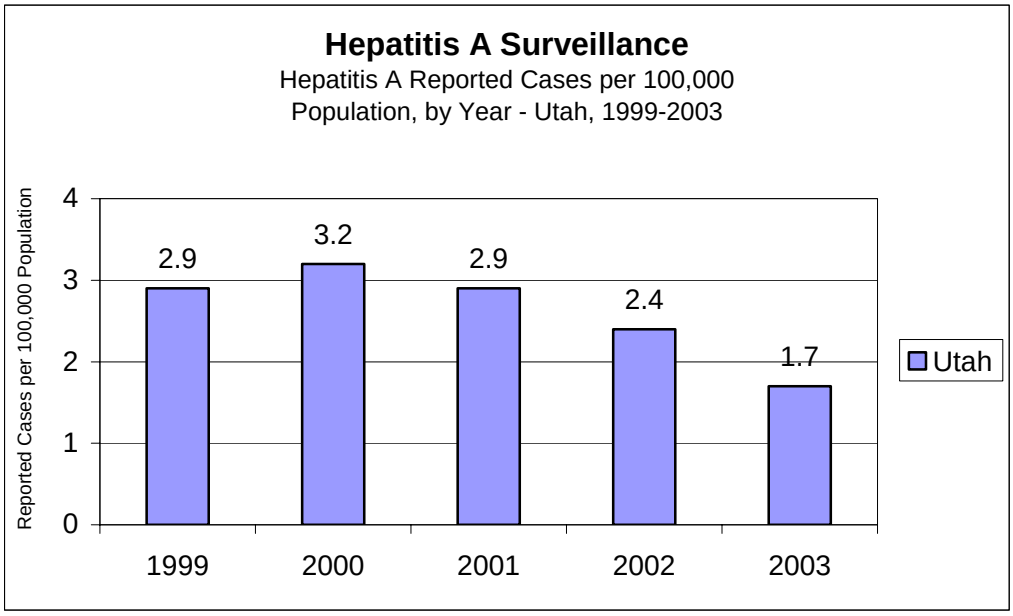
Cases of hepatitis A, B and C are required to be reported to the Utah Department of Health, Office of Epidemiology, per the Communicable Disease Rule, R386-702. Reports are received from laboratories, healthcare providers, organ donation centers, blood banks and plasma donation centers.

Hepatitis A

Hepatitis A has historically been one of the most frequently reported notifiable diseases in Utah. In Utah, reported cases of hepatitis A have been declining steadily from 3.2 cases per 100, 000 population in 2000 to 1.7 cases per 100,000 population in 2003 (see Table 1). The observable decrease in number of cases may be due to the use of an effective vaccine, available since 1995, and effective public health case management activities.

Hepatitis A vaccine has been recommended since 1996, for high-risk individuals (i.e., international travelers, men who have sex with men, drug users, etc.). Routine vaccination also became recommended nationwide in 1999 for children living in states where rates were above 10/100,000, which included Utah. Hepatitis A rates have declined steadily since the implementation of these recommendations, suggesting that these strategies have been instrumental in reducing the transmission of the disease in Utah. The overall rate in 2003 was the lowest yet recorded in Utah.

Table 1



Data Source: UDOH, Office of Epidemiology, Surveillance Program

Hepatitis B

The total number of reported cases of chronic and acute hepatitis B cases, from 1987 to 2004, totaled 4,637 in Utah. Of those cases, 22.7% (1,053 cases) were reported as chronic and 73.4% (3,402 cases) were reported as acute cases. The remaining 3.9% (182 cases) of the cases were identified as neither acute nor chronic (see Table 2).

Table 2

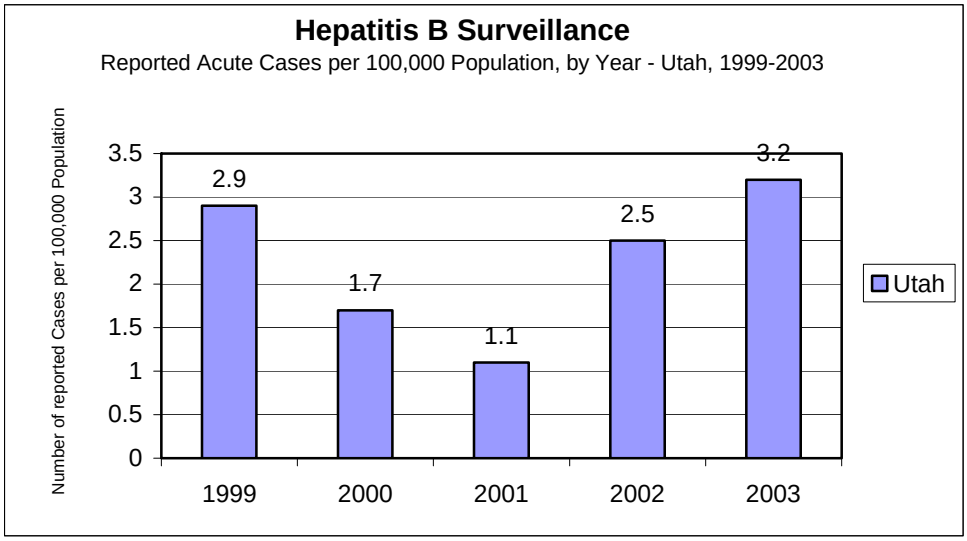
Reported Cases of Chronic and Acute Hepatitis B, Utah, 1987-2004		
Chronic	**Frequency**	**Percentage**
Yes	1053	22.7%
No	3402	73.4%
Missing	182	3.9%
Total	4637	100%

Data Source: UDOH, Office of Epidemiology, Surveillance Program

The number of reported acute hepatitis B cases in Utah decreased from 2.9 cases per 100,000 population in 1999 to 1.1 cases per 100,000 population in 2001, but increased again over the following two years to 2.5 cases per 100,000 population in 2002 and 3.2 cases per 100,000 people in 2003 (see Table 3).

A comprehensive strategy to decrease hepatitis B transmission has been in effect for more than a decade nationally. The strategy involves screening pregnant women for the disease, providing post-exposure prophylaxis to infants born to infected women, vaccinating children and high-risk individuals (i.e., health care workers, dialysis patients, household contacts and sexual partners of persons with chronic hepatitis B infections, recipients of certain blood products, persons with a recent history of having had multiple sex partners, men who have sex with men, injecting drug users, etc.). The incidence of hepatitis B has declined dramatically, both locally and nationwide, since the implementation of the strategy, particularly among the younger age groups covered by the recommendation for routine childhood vaccination.

Table 3



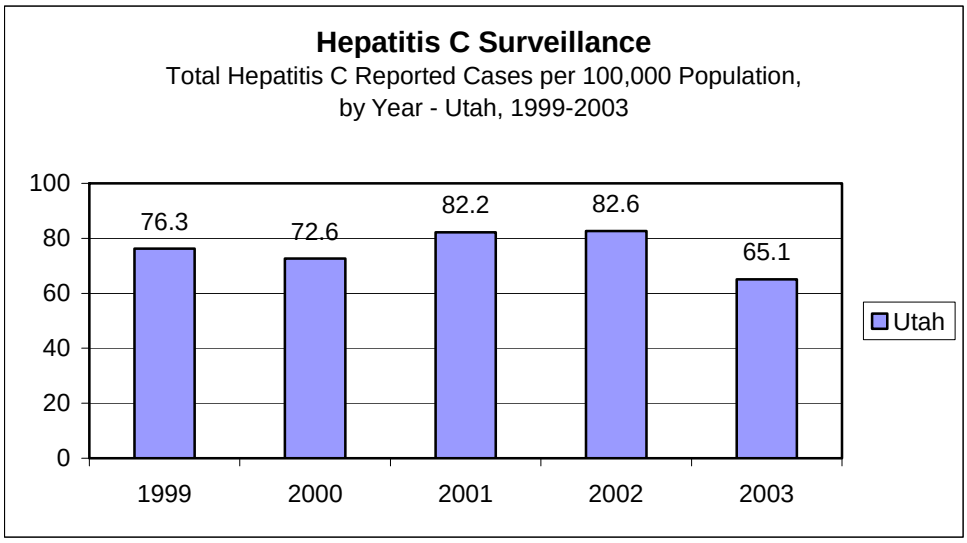
Data Source: UDOH, Office of Epidemiology, Surveillance Program

Hepatitis C

The number of reported hepatitis C cases in Utah declined from 76.3 cases per 100,000 population in 1999 to 72.6 cases per 100,000 population in 2000; however, the number of reported cases increased to 82.6 cases per 100,000 population in 2002, before falling

to a five-year low of 65.1 cases per 100,000 population in 2003 (see Table 4). In general, the incidence of hepatitis C infections nationally has been declining since the late 1980s. This decline is largely due to a decreased number of cases reported among injecting drug users.

Table 4

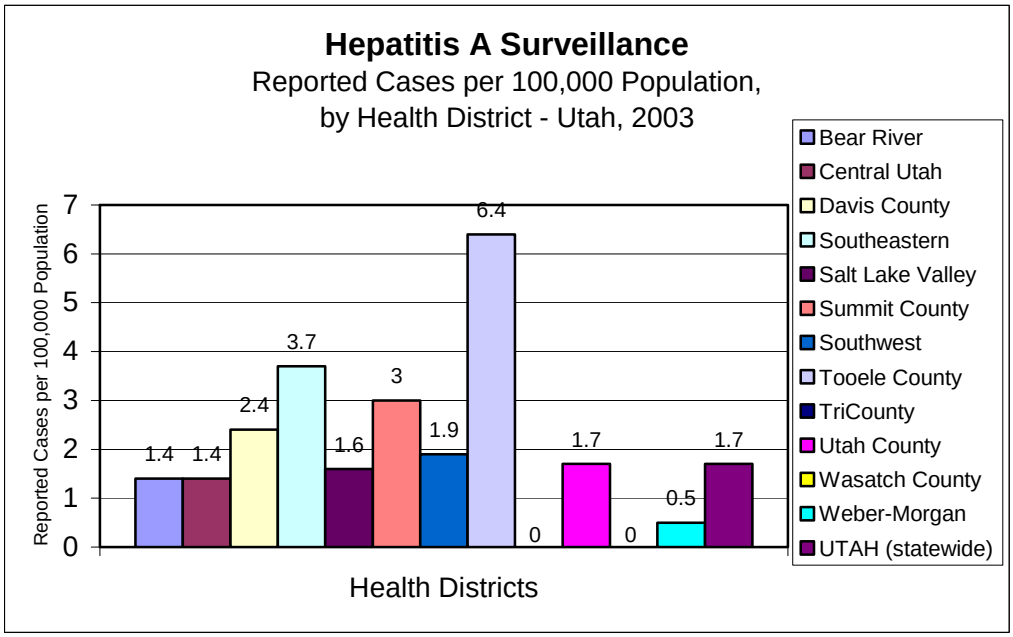


Data Source: UDOH, Office of Epidemiology, Surveillance Program

Geographic Distribution of Hepatitis A, B and C in Utah

Seven of Utah's 12 health districts were either equal to or were below the state's average hepatitis A rate of 1.7 cases per 100,000 population in 2003, including the following health districts: Bear River (1.4 cases per 100,000 population), Central Utah (1.4 cases per 100,000 population), Salt Lake Valley (1.6 cases per 100,000 population), Tri-County (0.0 cases per 100,000 population), Utah County (0.0 cases per 100,000 population), Wasatch (0.0 cases per 100,000 population) and Weber-Morgan (0.5 cases per 100,000 population). By health district, the highest rate of reported cases of hepatitis A in 2003 was from Tooele County with 6.4 cases per 100,000, followed by the Southeastern Utah District Health Department (3.7 cases per 100,000 population), Summit (3.0 cases per 100,000 population), and Davis with a slightly elevated rate of 2.4 cases per 100,000 population (see Table 5).

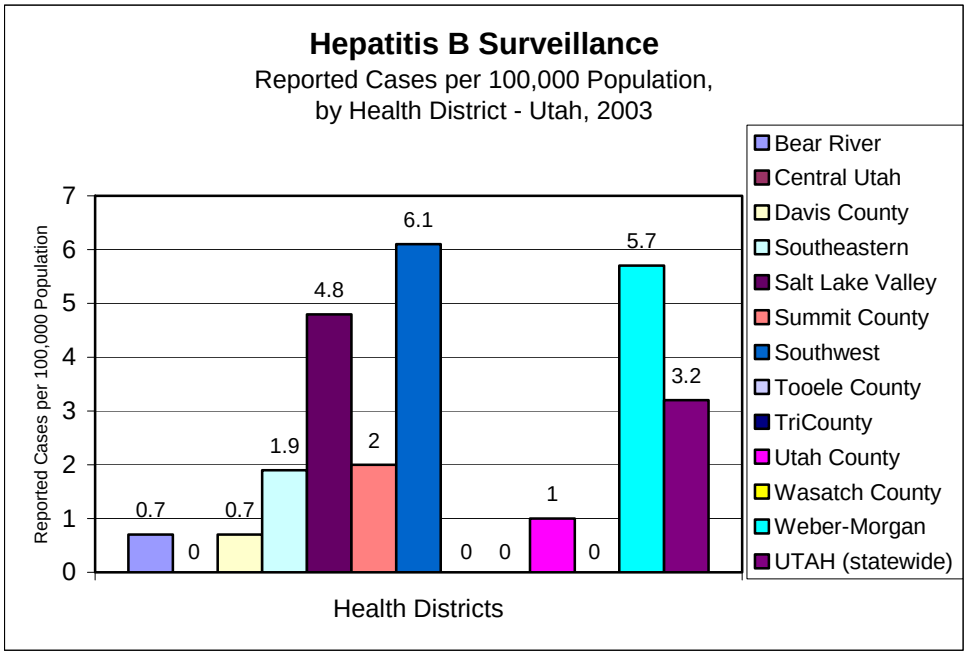
Table 5



Data Source: UDOH, Office of Epidemiology, Surveillance Program

In 2003, Southwest (6.1 cases per 100,000), Weber-Morgan (5.7 cases per 100,000), and Salt Lake Valley (4.8 cases per 100,000) health districts, reported notably greater rates of hepatitis B infections when compared to the state rate of 3.2 cases per 100,000 people. The remaining health districts reported considerably lower rates than the state rate (See Table 6).

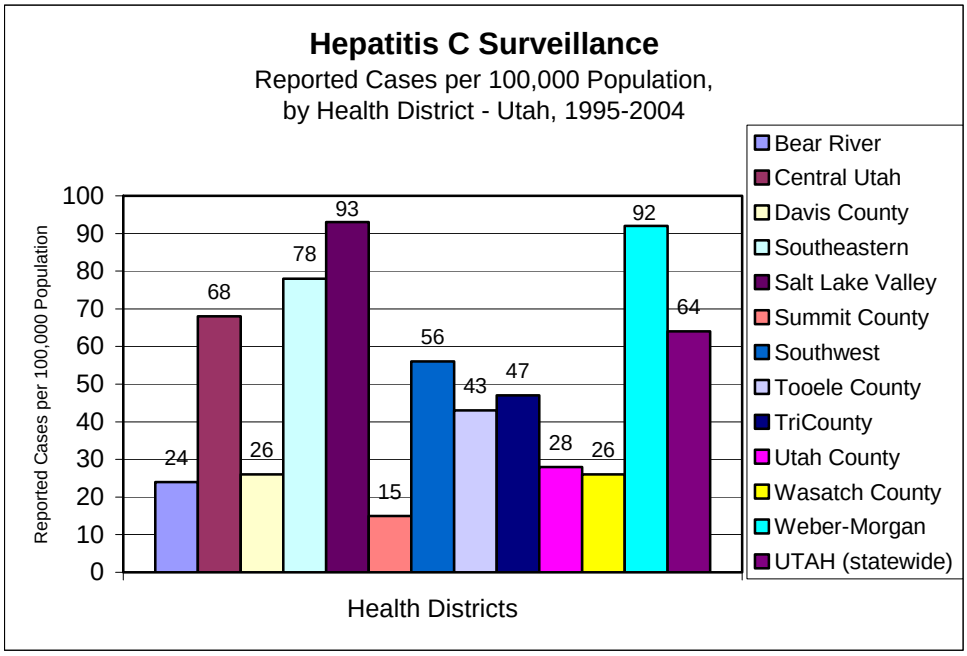
Table 6



Data Source: UDOH, Office of Epidemiology, Surveillance Program

Hepatitis C surveillance in 2003 revealed that four health districts have reported rates higher than the state rate of 64 cases per 100,000 population. Salt Lake Valley Health Department reported the highest rate with 93 cases per 100,000 population, followed closely by Weber-Morgan District Health Department with 92 cases per 100,000 population. The third highest rate, found in the Southeastern Utah District Health Department, followed with 78 cases per 100,000 population. The Central Utah Public Health Department reported only a slightly higher rate of 68 cases per 100,000 population. The remaining eight health districts reported either marginally or appreciably lower rates when compared to the state rate.

Table 7



Data Source: UDOH, Office of Epidemiology, Surveillance Program

Projected Trends of the Viral Hepatitis Epidemic in Utah

The declines in hepatitis A infection rates that have been observed nationally in recent years have been accompanied by shifts in the epidemiologic profile of this disease, with an increasing proportion of cases occurring among adults, particularly those in high-risk groups such as international travelers and men who have sex with men. Hepatitis A infection rates may continue to decline in high-risk groups as a younger generation of vaccinated children ages. However, further monitoring of disease rates is needed to determine if the current low rates are sustained and attributable to immunization programs and to identify groups and areas where additional vaccination efforts are needed.

While the incidence of hepatitis B has declined dramatically since implementation of special prevention and control strategies, high rates of disease continue among adults and high-risk groups. While Utah rates declined from 1999 to 2001, they increased in 2002 and 2003, indicating a need to strengthen efforts to reach these populations with vaccine. Like hepatitis A infection rates, hepatitis B infection rates may decline, particularly in high-risk groups, as vaccination efforts are augmented and as younger vaccinated children age.

Hepatitis C virus infections are the most common chronic bloodborne infections in the United States. As no effective vaccine against the infection is available, rates of hepatitis C infections may not decline as dramatically as those of hepatitis A and B infections. Therefore, prevention and control efforts must rely upon screening and testing of blood donors, viral inactivation of plasma-derived products, risk-reduction counseling and services, and implementation and maintenance of infection control practices. Ongoing surveillance is needed to ensure that any new cases of hepatitis C are identified and investigated to determine the source of infection and limit further spread of the virus.

Trends and Survival for Persons with Viral Hepatitis Diagnosis in Utah

The number of hepatitis A and B disease diagnoses may continue to decline, as immunization programs are augmented and as younger vaccinees age as more immunologically competent people regarding the disease. Although the number of hepatitis C disease diagnoses may decline as a result of effective prevention and control efforts, the decline may not be as dramatic as observed for hepatitis A and B infections, as no effective vaccine for the disease is available.

III. Inventory of Resources

Fiscal Resource Inventory

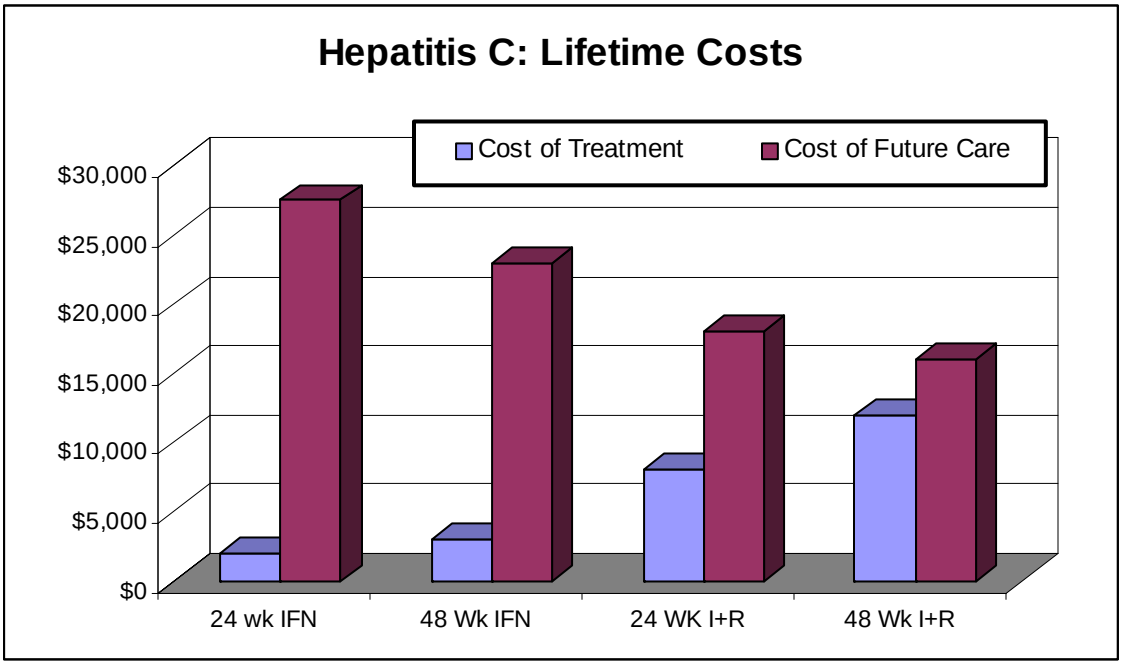
Fiscal resources at this time are sporadic, with much of the money for viral hepatitis in Utah coming from one-time grants and special projects. These sources of funding are not consistent. One of the goals under the treatment section of this Utah Viral Hepatitis Comprehensive Plan (see Section B, Part VI) is to coordinate resources between stakeholders. As these resources are identified, they will be listed in this section of the Utah Viral Hepatitis Comprehensive Plan.

Cost Effectiveness of Treatment Options

Viral hepatitis and its treatment have substantial implications for individuals and for health care payors. In HCV, for example, the cost of 48 weeks of combo treatment can cost about $12,000 and the cost for coronary artery bypass surgery from liver complications can cost around $27,000. Combination therapy eradicates the HCV virus

in 2 out of every 5 treated with genotype I. The costs of therapy should be offset by future savings through prevention of liver complications.

Table 8



IFN – Interferon alfa-2b therapy
I+R - Interferon alfa-2b & Ribavirin combination therapy
Data Source: John B Wong, MD, Division of Clinical Decision Making, Tufts-New England Medical Center

Current Viral Hepatitis Programs

As the Steering Committee and Work Groups met, several state, local and community organizations presented what they are currently doing to educate, prevent and treat viral hepatitis. While this is not a complete list of programs available in Utah, it depicts the kind of resources currently available.

Utah Immunization Program

- Located at the Utah Department of Health
- Funded by CDC grant
  - Vaccines for Children Program (VFC)
  - Adult Program
  - Adolescent Program
  - School & Daycare Reporting
  - Perinatal Hepatitis B Prevention

- State funds
  - Special projects – currently 22
  - HBIG for Perinatal program

Perinatal Hepatitis B Prevention Project

- Key elements of program
  - Screening
    - HbsAg testing of all pregnant women in each pregnancy
  - Identification and reporting
  - Case management and Tracking
    - Immunoprophylaxis at birth
    - Completion of 3 dose series by 6 months of age
    - Post vaccination serologic testing
    - Identification and vaccination of susceptible household and sexual contacts
- 5 year hospital survey
  - Started with 742 names of women receiving no prenatal care
  - Looked at 522 pairs of charts
    - Not tested – 169 women
      - 59% of infants received birth dose HBV
    - Unable to determine testing – 95 women
      - 74% of infants received birth dose HBV
- Strengths
  - Identifying more HbsAg positive pregnant women
  - Better follow up by case managers
  - Building relationships with hospitals

Hepatitis C Program Overview

- Primary Program Objectives
  - Develop, coordinate and evaluate a program to prevent and control HCV that is integrated with HIV prevention/STD Control Programs
  - Focus on managing, networking and building technical expertise, capacity within the Programs and the Utah Public Health Laboratory to control the spread of HCV.

- Program Activities
  - Develop the capacity to provide HCV testing through the Utah Public Health Laboratory
    - Capacity for ELISA testing has been developed
  - Identify five public health and clinical partners who can integrate and conduct HCV counseling and testing (C&T)
    - Salt Lake Valley Health Department began HCV C&T in May 2003 and finished testing on June 1, 2004
    - Weber-Morgan Health Department began HCV C&T of 100 at-risk individuals in December 2003
    - Refugee testing, October 2003 – September 2004
    - Continue to meet with community partners for future C&T (funding and referral issues)
  - Develop and implement HCV training and education plan
    - Met with community organizations to discuss needs
    - Created Hepatitis C 101 presentation
    - Conducted Hepatitis C educational sessions within community
    - Hepatitis C trainings – 4/03 & 1/04
    - Created Hepatitis C Advisory Council
    - Creating three-year Strategic Plan
  - Identify resources for hepatitis A and hepatitis B vaccination of high-risk persons
    - Special Vaccine Projects available through UDOH's Immunization Program
    - HAV and HBV vaccines offered at Salt Lake Valley Health Department to individuals offered HCV test
  - Establish resources for appropriate medical referral for HCV positive persons
    - Developed resource guide for HCV positive persons
    - Meeting with Medical Management Group – pilot training in Midtown Community Health Center
    - Continue to research resources available
- Future Program Activities
  - Conduct evaluation activities to ensure effective HCV prevention activities

        - Number of HCV C&T sites
        - Number of education sessions
        - Pre-post test analysis
        - Number of educational materials
        - Number of referrals for immunizations and other services
        - Questionnaires/focus groups to assess prevention activity effectiveness
    - Implement/improve surveillance for chronic HCV infections
        - Hire .5 FTE epidemiologist
        - Establish contract with HCV high incidence local health department to establish improved surveillance, outreach, immunization and referral pilot site for chronic HCV positive individuals

Infection Control/Employee Health (Logan Regional Hospital)

- Testing: Hepatitis A, B & C
    - Inpatients, outpatients, physicians offices, health care workers if needed
- Reported to the local health department (Bear River)
    - Positive HCV antibodies
    - HBV antigen
    - HAV IgM tests
    - Reported if available: additional lab tests, PCR testing, liver enzymes, pregnancy testing
    - If possible: Positive patients/health care workers would be educated/offered vaccines as indicated
- Health Care Workers
    - Hepatitis B testing
        - HbsAb following vaccination and at hire if indicated
        - HbsAg at time of exposure (If vaccinated)
        - HbsAg, HbcAb – nonresponders to vaccination (after 2 vaccination series)
        - If HbsAg or HbcAb positive, hep A vaccine is offered free of charge
    - Hepatitis C testing at time of exposure

  - Follow up testing as indicated per CDC guidelines
- Dialysis Patients
  - Patients tested for HCV antibody, HbsAB, HbcAb or HbsAg as indicated
  - + HCV antibody or HBV core antibody, patients would be offered hep A vaccine
  - We don't accept + HbsAg patients
- Hepatitis A Vaccination
  - Vaccine offered, free of charge to following hospital staff: daycare, pediatrics, engineering, GI lab, and dietary
  - Vaccine required for school age children (kindergarten) in daycare
- Hepatitis B Vaccination
  - Offered to all Logan Regional Hospital employees free of charge. (OSHA requires offering to those at risk for exposure to blood borne pathogens)
  - Offered to volunteers working in the operating room or emergency department
  - Given to all dialysis patients as per guidelines
  - Newborns: 1st dose at birth; HBIG given as indicated
  - Vaccine required for kids in daycare
- Education
  - New hire orientation
  - Patients: as needed

Service Resource Inventory

One of the goals of hepatitis treatment and care is to develop a current comprehensive Resource Inventory for Viral Hepatitis (see Section B, Part VI). When this Resource Inventory is completed, the process will be included in this section of the Utah Viral Hepatitis Comprehensive Plan.

SECTION B

WHERE WE ARE GOING AND HOW WE WILL GET THERE

I. Utah's Response to the Epidemic

Trend History

The number of reported cases of hepatitis A infections in Utah declined steadily from 2000 to 2003. The observable decrease in the number of cases may be due to improved vaccination programs and effective public health case management activities. Hepatitis A has historically been one of the most frequently reported notifiable diseases in Utah. However, an effective vaccine and effective case management have provided the opportunity to substantially reduce disease incidence and transmission. The overall rate in 2003 was the lowest yet recorded in Utah. However, further monitoring of disease rates is needed to determine if the current low rates are sustained and attributable to immunization programs and to identify groups and areas where additional vaccination efforts are needed.

In Utah, the number of reported acute hepatitis B cases decreased from 1999 to 2001, but increased during the following two years. The incidence of hepatitis B has declined dramatically since the implementation of prevention of control efforts. However, high rates of disease continue among adults and high-risk groups, indicating a need to strengthen efforts to reach these populations with vaccine.

The number of reported hepatitis C cases in Utah declined from 1999 to 2000; however, the number of reported cases increased in 2002, before falling to a five-year low in 2003. In general, the incidence of hepatitis C infections nationally has been declining since the late 1980s. This decline is largely due to a decreased number of cases reported among injecting drug users.

Planning Grant from Council of State and Territorial Epidemiologists

In the December of 2003 the Utah Department of Health (UDOH) submitted a request for proposal for Hepatitis Program Building at the State level to the Council of State and Territorial Epidemiologists (CSTE). The CSTE sent notification in January 2004 that the UDOH proposal to develop a written plan had been selected as one of six states for

awards that year. For the project period ending September 1, 2004, CSTE provided a total of $15,547.00 in support of the development of a written Utah Viral Hepatitis Comprehensive Plan for the Utah Department of Health.

II. Community Coordination

Building Partnerships

Currently, there is not a statewide viral hepatitis program supported by public and private partnerships. As this comprehensive plan is developed and eventually implemented and maintained it is our ambition to connect the state and local health departments, community based organizations and health care professionals.

Improving Communication

Creating this Viral Hepatitis Work Group is a primary effort to connect state and local health departments, community based organizations and health care professionals. Educating the members of this committee enables members to form links within their own smaller communities and to make connections with larger state and local bodies of government. Until a statewide viral hepatitis program can be implemented, communication between the state and local health departments, community based organizations and health care professionals will be of vital importance.

Reducing Duplication of Efforts

Although this comprehensive plan is an initial attempt to create a statewide viral hepatitis program, there are activities occurring in three distinct areas of the Utah Department of Health currently. The Office of Epidemiology (OOE) coordinates Hepatitis A (HAV), B (HBV) and C (HCV) surveillance activities. Perinatal HBV prevention is under the direction of the Immunization Program in the Bureau of Maternal and Child Health (BMCH). HCV testing, outreach and education are housed in the Bureau of Communicable Disease Control, which also includes HIV and STD interventions. These programs work hard to reduce duplication, but it is also the responsibility of local health departments and individual organizations and professionals to make sure efforts within their own communities are not duplications. The creation of this plan will assist in these coordinating efforts.

III. Community Collaborations

Key Partners

Various individuals and professionals represented on this Work Group committee have the responsibility of sharing what we have learned though this process with their local community partners. It will become increasingly important for these key partners to be consistent in their integration of the comprehensive plan as it is developed so that the entire community and state understand this is a coordinated local and statewide effort to prevent and control viral hepatitis.

IV. Overview of the Viral Hepatitis Planning Grant Steering Committee and Work Group, and Description of the Planning Process

The Need for a Viral Hepatitis Comprehensive Plan In Utah

The creation of a written plan for public health hepatitis coordination will assist the state and local health departments, community based organizations and health care professionals with integration efforts. At present, formal planning for viral hepatitis is not occurring in Utah.

Development of a Coordinated Hepatitis Planning Effort

The Utah Department of Health first proposed a participative, multi-disciplinary process to create a comprehensive plan in December of 2003. The goal of this process was to use the plan for program development and implementation at the state, local health department and community level to coordinate and enhance hepatitis education, immunization and prevention activities. Staff members from the Utah Department of Health, Bureau of Communicable Disease Control, Hepatitis C Program, Office of Epidemiology, Disease and Outbreak Management Program and the Bureau of Maternal Child Health, Immunization Program were involved in this initial collaboration effort.

The staff members from the Utah Department of Health listed above first met in January 2004. Discussion centered around who would be the key players needed for the Steering Committee (12-15 people) and also the larger Work Group Committee. The UDOH proposed a four-phase strategic planning process. The process will include:

Phase I: Initial Planning

Phase II: Working Group Meetings

Phase III: Strategic Plan Development

Phase IV: Working Group and External Partner Strategic Plan Review

Purpose of the Viral Hepatitis Planning Grant Steering Committee and Work Group

The main purpose of the Viral Hepatitis Planning Grant Steering Committee and Work Group is to oversee the development of the Utah Viral Hepatitis Comprehensive Plan. Individually, the Steering Committee has formally guided the process and conduct the SWOT (Strengths, Weaknesses, Opportunities, and Threats) analysis, and the Work Group reviewed the SWOT, identiiedy areas of focus or need, established task groups and created goals, objectives and activities.

Viral Hepatitis Planning Grant Steering Committee and Work Group Operations, Workload and Timeline

The Steering committee began meeting in February 2004. They met a total of four times between this initial meeting and the first meeting of the Work Group in May 2004. Members of the Steering Committee were also expected to serve as members of the Work Group along with other key Utah Department of Health and community partners. The Work Group met three times during the summer of 2004 with smaller task groups made up of Work Group participants meeting independently to finish their work in July and October. These smaller task groups included:

1. Viral Hepatitis Prevention
2. Viral Hepatitis Treatment
3. Advocacy for Viral Hepatitis
4. Surveillance of Viral Hepatitis

Currently it is the responsibility of the Utah Department of Health to oversee the creation of the Utah Viral Hepatitis Comprehensive Plan.

The staff of the Utah Department of Health, Bureau of Communicable Disease Control serves as the administrative and clerical support to the Steering Committee and Work Group. The professional staff of the Utah Department of Health, Bureau of Communicable Disease Control and Office of Epidemiology provided the epidemiologic,

demographic and grant information that was used in creating the Utah Viral Hepatitis Comprehensive Plan.

The Steering Committee established a timeline during which work was to be accomplished. Their goal was to have the Utah Viral Hepatitis Comprehensive Plan completed by November 2004 and presented to the community in December 2004.

Viral Hepatitis Planning Grant Timeline

Table 9

Month	Steering Committee	Work Group	Accomplish
February	Meeting: Tues., February 24		• Review purpose • Education timeline • Epi Update • Identify Workgroup members
March	Meeting: Tues., March 16		SWOT Analysis
April	Meeting: Tues., April 6		SWOT Analysis Cont.
May	Prep Meeting: Tues., May 11	1st Meeting: Tues., May 18	Focus Areas
June	Prep Meeting: Tues., June 8	Meeting: Tues., June 15	Task Groups
July		Meetings: Smaller groups meet separately to finish their work. 1. Prevention Group Tues., July 13 2. Treatment Group Tues., July 13 3. Advocacy Group Thurs., June 24 4. Surveillance Group Thurs., July 8	Goals and Objectives
August		Meeting: Tues., Aug. 18	Smaller groups will present their work to the larger group
September	Meeting: Tues., Sept. 7		Review 1st draft of Comprehensive Plan
October		Meetings: Smaller groups meet separately to modify their goals and objectives.	Goals and Objectives
October	Meeting: Tues., Oct. 26		Review 2nd draft of Plan; review modified goals and objectives
November	Meeting: Tues., Nov. 16		Review 2nd draft of Plan; review modified goals and objectives
December	Combined Meeting: Wed., Dec. 15		Presentation of final Comprehensive Plan to committee & community partners

V. Viral Hepatitis Planning Grant Steering Committee and Work Group's Vision and Mission Statement

Shared Vision for the Utah Viral Hepatitis Comprehensive Plan

During the first meeting of the Work Group in May 2004, a vision statement was presented to the group for their approval. The vision for the Viral Hepatitis Planning Process is:

> ***The prevention and control of viral hepatitis through a coordinated local and statewide effort that is supported by public and private partnerships.***

Mission Statement for the Committee Designing the Utah Viral Hepatitis Comprehensive Plan

The components of the mission statement led the work group through the planning process as they established goals, objectives and activities for creating this plan.

> ***The mission statement of the Viral Hepatitis Work Group is to:***
> - ***Improve the capacity for a comprehensive, culturally appropriate and systematic approach that will prevent the spread of viral hepatitis in Utah,***
> - ***Limit the progression and complications of viral hepatitis related liver disease,***
> - ***Advocate for comprehensive and effective viral hepatitis policies and resources, and***
> - ***Improve surveillance and data reporting, analysis and dissemination.***

VI. SWOT Analysis

During March and April 2004, The Viral Hepatitis Steering Committee performed a SWOT Analysis (Strengths, Weaknesses, Opportunities & Threats) for viral hepatitis activities in Utah. The first phase of the analysis centered around brainstorming ideas for strengths, weaknesses, opportunities & threats for viral hepatitis in Utah. The following questions for each category were considered during the brainstorming session:

- What are some STRENGTHS in Utah regarding viral hepatitis activities, etc? What is occurring that is positive/beneficial to the prevention and control of viral hepatitis? Remember to think statewide. Also remember that it's ok to list activities that you think are good but need improvement.
- What are some WEAKNESSES in Utah regarding viral hepatitis activities, etc? What's missing? Are there any current activities that need significant improvement? Remember to think statewide.
- What/where are the OPPORTUNITIES for creating or continuing success regarding viral hepatitis in Utah? Are there OPPORTUNITIES for improving existing activities? As always, remember to think statewide.
- What are the THREATS to the opportunities?

Once the brainstorming of ideas was complete, the Vital Hepatitis Steering Committee began to organize the SWOT chart into themes. The final summary and notes of this analysis are as follows:

SWOT Analysis Summary
Viral Hepatitis – Utah
April 2004

Table 10

Strengths	Weaknesses
• Assertive efforts to improve vaccine coverage/access	• Insufficient resources
• Early efforts at coordinating hepatitis C activities	• Surveillance systems
• Epi/Surveillance	• Lack of public awareness
• Perinatal HBV Program	• Lack of provider knowledge
• Community willingness to address issues	• Lack of integration and expansion

Opportunities	Threats
• More public awareness can influence legislative action	• Insufficient and fragmented funding
• Educational opportunities everywhere	• Competing priorities
• Opportunities to integrate	• Lack of knowledge and awareness
• Improved web-based system	• Legislative and lack of leadership support
	• Service gaps

SWOT Analysis Notes
Viral Hepatitis – Utah
April 2004

Strengths:

1. Assertive efforts to improve vaccine coverage/access
    a. Special programs
    b. First dose
    c. Kindergarten requirements
    d. High Risk
    e. HCV Programming
2. Early efforts at coordinating HCV activities
3. Epi/Surveillance
    a. Reporting, follow-up and testing, HAV and HBV, adequate
    b. Master's level personnel
    c. Expanded lab capacity
4. Perinatal HBV Program
    a. Innovations to meet different needs of different populations (i.e., bracelet project)
5. Community willingness to address issues

Weaknesses:

1. Insufficient resources
    a. Private and public
    b. Funding, time, money and staff
2. Surveillance systems
    a. HCV needs improvement
    b. Standardizing and clarification of reporting requirements
    c. Epi position needed
    d. Across the board database needs improving (integration of program and electronic reporting)
3. Lack of public awareness
4. Lack of provider knowledge
    a. Primary care providers
    b. Third party payers
5. Lack of integration and expansion

Opportunities:

1. More public awareness can influence legislative action
2. Educational opportunities everywhere
    a. Community and cultural competency
    b. Public and private
    c. Innovative ways to include rural areas (i.e. video conference)
3. Opportunities to integrate
    a. Work better with what we already have
4. Improved web-based system
    a. Better data

Threats:

1. Insufficient and fragmented funding
2. Competing priorities
    a. Capacity issues/organizational structure
    b. Multiple target populations
3. Lack of knowledge and awareness
    a. Provider misconceptions
    b. Legislative
    c. Populations affected
    d. Third party payers and insurance companies
4. Legislative and lack of leadership support
    a. Political will
5. Service gaps
    a. Treatment long and expensive
    b. Diagnosis not always clear
    c. Outreach capacity
    d. Unstable/inconsistent access to vaccines and high risk populations

VII. Goals and Objectives for 2005-2007

Four smaller task groups made up of members from the Viral Hepatitis Work Group wrote the goals, objectives and activities. Each task group was assigned one of the four areas listed within the mission statement for the Viral Hepatitis Work Group. They are:

5. Viral Hepatitis Prevention
6. Viral Hepatitis Treatment and Care
7. Viral Hepatitis Advocacy
8. Viral Hepatitis Surveillance

Each small task group met independently and put together their own goals, objectives and activities. Each group was encouraged to refer to the SWOT analysis while forming goals and objectives. The format varies slightly from each group, but the task of developing the goals, objectives and activities was completed. A group leader for each of the task groups presented their work to the larger committee for input and approval.

Viral Hepatitis Prevention

Goal #1: To provide comprehensive prevention and education in order to prevent the spread of HAV.

Objective #1: Improve the training and certification for food handler's course.

Activities:

- By January 31, 2005, the food handler's curriculum will be reviewed to ensure that it is culturally and linguistically appropriate.
- By March 1, 2005, recommendations of food handler's curriculum will be provided to local health departments as needed.

Objective #2: Improve the education, training and certification for day care providers.

Activities:

- By April 1, 2005, review day care provider education/training.

Objective #3: Identify resources to provide low cost or no cost HAV vaccine to all high-risk individuals (ie: food handlers, day care providers, etc.)

Activities:

- Encourage and educate local health departments and others on how to acquire resources to provide low cost or no cost vaccine, including special project funding.
- Assess obstacles in providing HAV vaccine.

Goal #2: To prevent the spread of HBV and HCV.

Objective #1: Provide prevention education targeted to high-risk groups (MSM, IDUs, incarcerated populations, sex workers) to educate about HBV and HCV.

Activities:

- By March 1, 2005, target jr. high school students in STARS program (pilot) piercings, tattoos and sexual activity with prevention education on HAV, HBV and HCV
- By January 31, 2005, explore resources for providing condoms to high-risk populations
- By February 1, 2005, explore educational opportunities with treatment providers at the University of Utah School of Drug and Alcohol Counselors.
- Explore integrating education materials to include information on HAV, STDs, HIV, etc.

Objective #2: Facilitate Hepatitis B vaccinations of high-risk adolescents and adults.

Activities:

- By January 31, 2005, identify barriers to providing HBV vaccinations to high-risk adults.
- Provide referrals and recommendations for health care providers to high-risk groups.
- Seek resources for grants available for high-risk adults.
- By April 1, 2005, review "Vaccinate Before You Graduate" program effectiveness in high schools. How many schools are involved?

Objective #3: Improve the prevention of perinatal hepatitis B transmission.

Activities:

- Develop awareness program regarding perinatal HBV vaccine for women of childbearing age.
- By December 31, 2005, implement special measures addition to communicable disease rule to prevent perinatal transmission of hepatitis B.
- Work with laboratories to capture pregnancy status in conjunction with hepatitis B testing.

Hepatitis Treatment and Care

Goal: To provide information and facilitate coordination of services for the treatment and care of viral hepatitis C.

Objective #1: To provide a current comprehensive Resource Inventory for viral hepatitis C.

Activities:

- By January 31, 2005, develop protocol for conducting resource inventory to include funding, expertise and source of services.
- By March 30, 2005, develop a resource inventory survey.
- By April 30, 2005 develop list of key providers that provide hepatitis treatment throughout the state.
- By June 30, 2005 develop methods for resource collection and compilation.
- By August 1, 2005, distribute resource inventory surveys to providers.
- By September 30, 2005, analyze survey results.
- By November 30, 2005, develop a Resource Inventory.

- By December 31, 2005, disseminate the Resource to providers and consumers (booklet format and web based).

Objective #2: To conduct a comprehensive needs assessment of providers and consumers.

Activities:

- By January 31, 2005, will develop protocol for conducting a needs assessment.
- By March 30, 2005, develop provider and consumer needs assessment surveys.
- By April 30, 2005, identify providers and consumers to participate in the needs assessment.
- By June 30, 2005, develop methods for data collection and data analysis.
- By September 30, 2005 distribute the needs assessment to providers and consumers.
- By June 30, 2006, distribute survey results.
- By November 30, 2006, write a needs assessment report.
- By December 31, 2006 disseminate the needs assessment report throughout the community.

Objective #3: To provide up-to-date Treatment Guidelines and Recommendations for providers.

Activities:

- By December 31, 2005, conduct literature search for treatment updates.
- By December 31, 2005, assemble an expert advisory committee to review and approve literary recommendations.
- By December 31, 2005, develop a tool kit for providers.
- By December 31, 2005, identify appropriate newsletters, websites or other publications and update current treatment guidelines and recommendations.
- By December 31, 2006, hold an annual conference for viral hepatitis education for providers and include a session to market provider tool kit.
- By December 31, 2006, develop an awareness campaign on.

Objective #4: To provide appropriate up-to-date information for the diagnosis and treatment for viral hepatitis for clients.

Activities:

- By June 30, 2005, develop tool kit for clients.
- Each calendar year, hold an annual symposium will be held.
- By December 30, 2006, develop a media awareness campaign.
- By December 31, 2005, form treatment support groups for clients.

Objective #5: To coordinate resources between stakeholders.

Activities:

- By December 31, 2006, and each year thereafter update and disseminate the Resource Directory.

Hepatitis Advocacy

Goal: Advocate for comprehensive and effective viral hepatitis policies and resources.

Objective #1: Sustain and enhance the current viral hepatitis work group to increase effective communication and collaboration and to increase the level of support for viral hepatitis programs and activities.

Activities:

- On an ongoing basis, reconvene the Viral Hepatitis Work Group to review the progress of the Plan, prioritize and assign responsibilities.
- By March 31, 2005, invite additional members from different areas within the community to participate in the planning committee.

Objective #2: Implement statewide comprehensive viral hepatitis public awareness and education campaigns.

Activities:

- By December 31, 2005, work with the Governor's Office to implement a Governor's Proclamation signing declaring a day of viral hepatitis public awareness in Utah. Write press releases to accompany the declaration.
- By December 31, 2005, offer posters and brochures in libraries and other state buildings that offer social services and community resources.

- By December 31, 2006, produce education campaigns for CBOs to offer in various communities in the state.
- By December 31, 2006, create a Youth Advisory Council (YAC) to advise on infectious diseases affecting youth.
- By December 31, 2006, offer conferences and/or education campaigns for adolescents.
- By December 31, 2007, create and implement radio and TV public service announcements.
- By December 31, 2007, create billboard messages.

Objective #3: Create at least five policy documents over the next three years (white papers, recommendations, statements, guidelines, etc.) that can be used to influence healthcare practice, public health policy and resource allocation decisions.

Activities:

- By June 30, 2005, create a white paper subcommittee to prioritize the following topics and activities for policy development and distribution:
  - Recommend that every medical provider office/clinic offer vaccination and/or testing based on risk as part of the preventive health care package.
  - Recommend that all food workers be vaccinated against viral hepatitis as part of their food handlers' permit.
  - Determine the areas of the population at a greater risk and work with CBOs to allocate resources for education, testing and prevention in those areas.
  - Recommend that all health practitioners, after finding a person infected, recommend that the patient have all household members tested for or vaccinated against hepatitis.
  - Recommend that all state clinics offer testing and vaccination free of charge or at low cost if it is not being done yet.
  - Distribute policy documents to key community stakeholders.

Objective #4: Continue to develop broad-based support for the viral hepatitis plan to create momentum to move the Strategy forward.

Activities:

- By March 30, 2005, involve all CBOs and other community organizations to gain support for the Strategy.
- By December 31, 2005, request support from politicians and influential community leaders.
- By December 31, 2007, implement a comprehensive media approach for the campaign.

Objective #5: Encourage the development of a community-based organization dedicated to “loving your liver”.

Activities:

- By December 31, 2005, research and learn from past efforts in Utah to develop a liver organization.
- By December 31, 2005, explore other states’ successes in developing a liver organization.
- On an ongoing basis, encourage existing CBOs to develop a plan dedicated to hepatitis prevention integration.
- On an ongoing basis, continue to research and monitor funding opportunities that could lead to the development of a foundation or formal organization.

Objective #6: Develop strategies for providing sustainable resources to implement the Utah Viral Hepatitis Plan.

Activities:

- On an ongoing basis, research and apply for funding from the Centers for Disease Control and Prevention (CDC) and other federal agencies.
- By June 30, 2005, create strategies/campaigns to encourage the State to dedicate funds for viral hepatitis services.
- On an ongoing basis, request funding and support from private corporations.
- By December 31, 2005, organize an annual telethon or similar event to raise funds.

Hepatitis Surveillance

Goal: To evaluate and guide hepatitis A, B and C programs, intervention, and advocacy through accurate, complete and timely surveillance data.

Objective #1: Define the reason and purpose for surveillance of the viral hepatitides.

Activities:

- By February 1, 2005, the Office of Epidemiology (OOE), with local health department (LHD) input, will develop workshops/presentations to provide education regarding the three principal types of viral hepatitis and the purpose of their surveillance (acute and chronic), and will solicit input to define and gain consensus on critical steps for investigation from a local, state and federal perspective.
- By February 1, 2005, a hepatitis surveillance workgroup will be assembled that will include representation from OOE staff, local health department staff, UPHL and private laboratory personnel, and other key stakeholders.

Objective #2: The workgroup will evaluate and develop investigation, management and surveillance plans and protocols for acute hepatitis A, B, and C, and chronic hepatitis B and C, based on input received from workshops/presentations.

Activities:

- By, June 1, 2005, in conjunction with the ESW Forms workgroup, the Hepatitis workgroup will update or create protocols and forms for data collection and case management and investigation of the viral hepatitides**.** This process will include:
    - Evaluation of current hepatitis investigation forms and forms for purchase for content, usefulness, and ease of use.
    - Develop recommendations for new forms and protocols based on this evaluation of existing materials and feedback from workshops.
    - Finalization of new forms and protocols by March 2005.
    - Replacement of old data collection forms through collaboration of OOE staff, Hepatitis Surveillance work group members, and ESW Forms workgroup members, who will ensure updated/new forms are delivered and available for state and local health departments by May 1, 2005.

Objective #3: Implementation of new forms and protocols will be used by all LHDs by June 15, 2006 (integration of the forms and protocols into SERPH will enable electronic data collection, with paper forms available for back-up).

Activities:

- In collaboration with Systems Development Program staff, workgroup members will assist with incorporation of protocols and new/updated forms into SERPH and with pilot testing of the forms, protocols, and disease plans.
- Workgroup members will facilitate training for LHDs, UDOH, and other staff as needed regarding hepatitis data collection and investigation and management methods using updated protocols and forms (using SERPH when available).

Objective #4: Develop a registry for chronic hepatitis B and C that effectively meets the needs of the stakeholders.

Activities:

- By January 31, 2005, OOE, with LHD input, will develop a draft document defining the purpose and use of a registry.
- By February 28, 2005, OOE staff will contact other states' agencies with hepatitis registries to determine their usefulness and identify best practices.
- By March 15, 2005, OOE, the Hepatitis surveillance workgroup, and LHD staff will meet to identify the purposes and uses of hepatitis registries for chronic hepatitis B and C (this will be coordinated with activities described for acute hepatitis in Objectives 1 & 2).
- OOE, the Hepatitis surveillance workgroup, and LHD staff will develop a plan for a new registry, including database layout, to be incorporated into SERPH. OOE staff (and workgroup members if needed) will meet with systems development program staff to create a hepatitis registry in SERPH. Implementation of the registry in SERPH will include:
    - By July 31, 2005, develop a beta version of the database that can be tested prior to release.
    - By September 15, 2005, develop protocols to maintain the registry, with input from OOE staff and Hepatitis workgroup as needed. Based

on created protocols, a policy and procedures guide will be created to maintain the registry.

- By October 31, 2005, release of a functional hepatitis registry in SERPH.
- By November 1, 2005, training of OOE, LHD, and other staff that may enter data into the registries on practices to maintain the registry.
- By November 30 2005, development of and training on a back-up system for the hepatitis registry that will be used if the SERPH system is compromised, and will be used until SERPH is ready/available.

Objective # 5: Assist in the development of electronic laboratory reporting.

Activities:

- Define which laboratory tests and data pieces are necessary for hepatitis surveillance.
- In collaboration with systems development program staff, laboratories in Utah will be contacted to determine how data are stored in laboratory databases, how data and storage differ among laboratories, and how results may logically and consistently be delivered to UDOH.
- By July 15, 2005, systems development program staff will determine the ideal standard for laboratory tests and test results to be submitted electronically, with input from Hepatitis workgroup members as needed.
- In collaboration with systems development program staff, all laboratories in Utah will be contacted to assess interest in and ability to report data electronically; data requirements (e.g. fields to collect, format for delivery, etc.) will be given to lab personnel who can and will transmit data electronically.
- A procedure/protocol for reporting laboratory results in the event that UDOH cannot receive electronic reports will be developed and shared (i.e. a back-up method for report submission will be developed and participants will be educated regarding this method.)
- The Hepatitis surveillance workgroup and the systems development program staff will coordinate this electronic laboratory reporting initiative with other initiatives (e.g. UCLIN) to consistently communicate public health's needs to laboratories.

- OOE and systems development program staff will work together to continuously evaluate the efficiency and efficacy of electronic laboratory reporting data over time, in this case focusing on its relevance to surveillance of the hepatitides.

VIII. Creating a Hepatitis C Strategic Plan

The idea to create a three-year Hepatitis C Strategic Plan was first proposed by Utah's Hepatitis C Coordinator in a Hepatitis C Advisory Council meeting in October 2003. The council briefly discussed the possibility and agreed to pursue it.

From November 2003 through February 2004, The Hepatitis C Coordinator facilitated four meetings with the Hepatitis C Advisory Council to map assets, review gaps and needs, brainstorm and prioritize hepatitis C issues in Utah. Three primary topic areas were decided upon and subsequent subcommittees were formed to write specific recommendations for the plan. The subcommittees included Education; Counseling/Testing, Vaccination and Surveillance; and Care, Treatment and Support.

Between April and June 2004, a total of five subcommittee meetings were held to write specific recommendations for the plan. In July 2004, the Hepatitis C Advisory Council met to review all subcommittee recommendations. The suggested changes were made and then sent via e-mail for an additional review to the rest of the council unable to attend the meeting. The recommendations were then slightly revised one last time in a December 2004 meeting based on e-mail feedback and council consensus. All meetings were facilitated by the Hepatitis C Coordinator.

Hepatitis C Advisory Council members, July 2003 – December 2004, include:

Felicia Alvarez, MPH - Utah Department of Health, Office of Epidemiology
Annette Atkinson, M(ASCP) - Utah Department of Health Laboratory
Nicole Campolucci - Volunteers of America Homeless Youth Resource Center
LaPriel Clark, RN, MSN - Bear River Health Department
Luciano Colonna - The Harm Reduction Project
John Cottrell, MS - Project Reality

Kellie Custen - Utah Department of Health, STD Program

Edwin Espinel - Utah Department of Health, HIV Prevention Program/Salt Lake Valley Health Department

Lynn Flinders - Utah County Health Department

Rebecca Fronberg - Utah Department of Health, HIV Prevention Program

Teresa Garrett, RN, MS - Utah Department of Health, Bureau of Communicable Disease Control

Gary M. House, MPH - Weber-Morgan Health Department

Barbara Jepson, MPA, MT (ASCP) - Utah Department of Health Laboratory

Patricia K. Jones, BS - GlaxoSmithKline

Nicholas Lee - Utah Department of Health, STD Program

Sarah McClellan - Northern Utah Coalition, Inc.

Peggy Morrow - Salt Lake City

Susan Poulos, RN - Association for Utah Community Health

Owen Quinonez - Utah Department of Health, Ethnic Health/American Red Cross

Garie Spencer - Salt Lake City

Scott Stevens, MD - LDS Hospital/Wasatch Homeless Health Care

Chris Stock, Pharm.D. - George E Wahlen VA Salt Lake City Health Care System

Gordon Swenson - Utah Division of Rehabilitation Services

Pat Thomas - Southwest Utah Public Health Department

Stephen Thompson - Roche Pharmaceuticals

Melanie Wallentine, MPH (Council Chairperson/Hepatitis C Coordinator) - Utah Department of Health, Hepatitis C Program

Seanna Williams, MSW, C-SWCM - Utah AIDS Foundation/The Harm Reduction Project

Gayle Williamson - Salt Lake Valley Health Department

Individuals that participated in larger group sessions November 2003 - December 2004 include:

Felicia Alvarez, MPH
Annette Atkinson, M(ASCP)
Nicole Campolucci
LaPriel Clark, RN, MSN
John Cottrell, MS
Edwin Espinel
Rebecca Fronberg
Barbara Jepson, MPA, MT(ASCP)

Teresa Garrett, RN, MS
Gary M. House, MPH
Nicholas Lee
Sarah McClellan
Susan Poulos, RN
Owen Quinonez
Scott Stevens, MD
Chris Stock, Pharm.D.
Seanna Williams, MSW, C-SWCM
Gayle Williamson

Education Subcommittee members include:

Annette Atkinson, M(ASCP)
Sarah McClellan
Susan Poulos, RN
Seanna Williams, MSW, C-SWCM
Gayle Williamson

Counseling/Testing, Vaccination and Surveillance Subcommittee members include:

Rebecca Fronberg
Gary M. House, MPH
Barbara Jepson, MPA, MT(ASCP)
Chris Stock, Pharm.D.

Care Treatment and Support Subcommittee members include:

John Cottrell, MS
Edwin Espinel
Peggy Morrow
Scott Stevens, MD
Stephen Thompson

Additional individuals that participated in reviewing subcommittee recommendations include:

Carolyn Rose, RN, BSN - Summit County Health Department
Kay Whetstone, RN, BSN, MPH - Southwest Utah Public Health Department

Education

Goal #1: To increase awareness and knowledge of hepatitis C among the general public.

Objective #1: By December 31, 2007, plan, develop, implement and evaluate a statewide education campaign for HCV that is grounded in accurate information and is culturally and linguistically appropriate.

Action Steps:

- By December 31, 2005, the Hepatitis C Coordinator will create a work group comprised of public/private individuals interested in HCV issues to gather

accurate HCV information, categorize and compile the information into a user-friendly package that is relevant and accessible to the general public. To the extent possible, the work group will be comprised of various cultural, linguistic and technical backgrounds.

- By December 31, 2005, the Hepatitis C Coordinator will work with the Hepatitis C Work Group and other interested parties to plan and coordinate a Hepatitis C Conference during 2005. If possible, the conference will coincide with liver awareness month (May). The Hepatitis C Coordinator will seek funding opportunities for the conference.
- By June 30, 2005, the Hepatitis C Coordinator will work with the Hepatitis C Work Group and other interested parties to create a Speaker's Bureau that can provide educational sessions to the general public. (This is the same Speaker's Bureau that will be referenced in Goal #2). The Speaker's Bureau will be by invitation and on a volunteer basis and will be comprised of HCV + individuals, and providers/others working with HCV + individuals. To the extent possible, speakers will be available statewide and will be from various cultural and linguistic backgrounds. All speakers will be required to attend a Train the Trainer workshop on Hepatitis C.
- The Hepatitis C Coordinator will work with the Hepatitis C Advisory Council, the Hepatitis C Work Group and other interested parties to create a campaign for "liver awareness month" in May 2006. The Hepatitis C Coordinator will research funding options for the campaign. If no additional funding is available, no/low-cost options will be pursued, including the following: newspaper articles; radio and TV time, such as local radio talk shows on KRCL/KSL and Check Your Health; and already existing "campaigns in a box" that may exist through the American Liver Foundation, pharmaceutical companies or others.
- By June 30, 2006, the Hepatitis C Coordinator will work with local health departments to provide the general public with access to hepatitis C information via clinics, licensing areas and/or other arenas.

Goal #2: To increase accurate information distributed to at-risk individuals and HCV + individuals.

Objective #1: By December 31, 2005, develop and/or distribute accurate information that is appropriate for addressing the educational needs of at-risk individuals and HCV + individuals and is culturally and linguistically appropriate.

Action Steps:

- By December 31, 2005, the Hepatitis C Coordinator will create a work group comprised of public/private individuals interested in HCV issues to gather accurate HCV information, categorize and compile the information into a user-friendly package that is relevant to at-risk/HCV + individuals. To the extent possible, the work group will be comprised of various cultural and linguistic backgrounds.
- By June 30, 2006, the Hepatitis C Coordinator will work with local health departments to provide at-risk/HCV + individuals with access to hepatitis C information via clinics, licensing areas and/or other arenas.
- By June 30, 2005, the Hepatitis C Coordinator will work with the Hepatitis C Work Group to create a Speaker's Bureau. (This is the same Speaker's Bureau that was referenced in Goal #1). The Speaker's Bureau will be by invitation and on a volunteer basis and will be comprised of HCV + individuals, and providers/others working with HCV + individuals. To the extent possible, speakers will be available statewide and will be from various cultural and linguistic backgrounds. All speakers will be required to attend a Train the Trainer workshop on Hepatitis C.
- By June 30, 2005, the Hepatitis C Coordinator will create and maintain a "canned Hepatitis C 101" presentation for trained HCV educators to use who have the opportunity to present to at-risk/HCV + individuals. The presentation will be updated regularly based on need.

Goal #3: To increase information about HCV to medical providers and other hepatitis C providers.

Objective #1: By December 31, 2005, develop and coordinate HCV educational sessions specific to local health nurses, local health officers, other medical providers, and other hepatitis C providers.

Action Steps:

- By December 31, 2005, the Hepatitis C Coordinator will create a work group comprised of public/private individuals interested in HCV issues to gather

accurate HCV information, categorize and compile the information into a user-friendly package that is relevant to medical and other hepatitis C providers.

- By December 31, 2005, the Hepatitis C Coordinator will work with the Nursing Directors, Communicable Disease (CD) Nurses, local health officers, other medical providers, and other hepatitis C providers to try to coordinate a schedule for offering educational sessions. An assessment will be conducted in year one and information developed based on needs. Nursing directors and CD nurses will be targeted for pilot educational sessions; educational sessions for nurses will be evaluated to refine additional training. The possibility of offering continuing educational units will be explored.
- By December 31, 2006, the Hepatitis C Coordinator will offer coordinated HCV educational sessions to nursing directors, nurses, local health officers, and other available providers statewide via the Nursing Director meetings, CD Nurses' meetings, and other available provider meetings.

Counseling/Testing, Vaccination and Surveillance

Goal #1: To provide cost-effective hepatitis C testing in health settings statewide focusing on high-risk individuals.

Objective #1: By June 30, 2005, identify healthcare sites statewide that can offer HCV counseling, testing and referral (CTR).

Action Steps:

- By March 31, 2005, the Hepatitis C Coordinator will contact local health departments (LHDs) to assess their interest and capacity to provide hepatitis C CTR. If LHDs are not interested or are unable to provide CTR, the Hepatitis C Coordinator will ask the LHDs for recommendations to potential testing organizations/sites within their health jurisdiction. Other potential testing sites may also be explored along with LHD recommendations.
- By April 30, 2005, the Hepatitis C Coordinator will work with the Hepatitis C Advisory Council and other interested parties to create a comprehensive list of potential CTR sites statewide. Resources for creating the list may include the UDOH/HIV Prevention Program's HIV contractor list, organizations/entities that work with Salt Lake Valley Health Department, and additional high-risk sites.

- By June 30, 2005, the Hepatitis C Coordinator will work with the Hepatitis C Work Group and/or the Hepatitis C Advisory Council to create and send a survey soliciting the capability and interest to the potential sites on the list.

Objective #2: By June 30, 2005, establish HCV testing criteria based upon level of risk.

Action Steps:

- By January 31, 2005, the Hepatitis C Coordinator will conduct a review of the current literature and recommendations regarding HCV testing.
- By April 30, 2005, the Hepatitis C Coordinator will work with the Hepatitis C Advisory Council to define and prioritize levels of risk.
- By April 30, 2005, the Hepatitis C Coordinator will work with the Hepatitis C Council and HCV + individuals to endorse/adopt a risk assessment tool.
- By June 30, 2005, the Hepatitis C Coordinator will work with the Utah Department of Health Laboratory, the Hepatitis C Advisory Council and HCV testing sites to determine which tests are needed when screening clients in participating health settings.
- By June 30, 2005, the Hepatitis C Coordinator will work with the Utah Department of Health Laboratory, the Hepatitis C Advisory Council and participating HCV testing sites to determine specific testing protocols.

Objective #3: By June 30, 2005, establish provider reimbursement levels for testing based on levels of risk.

Action Steps:

- By March 31, 2005, the Hepatitis C Coordinator will assess other states' activities/policies regarding HCV and/or HIV reimbursement based on levels of risk.
- By June 30, 2005, the Hepatitis C Coordinator will work with the Hepatitis C Advisory Council to assess the testing criteria established in goal 1, objective 2.
- By June 30, 2005, the Hepatitis C Coordinator will work with the Hepatitis C Advisory Council and other interested individuals to align maximum reimbursement with highest client risk.

Goal #2: To offer hepatitis A and hepatitis B vaccinations to HCV + individuals and individuals with high-risk behaviors statewide.

Objective #1: By December 31, 2007, identify sites and HAV/HBV vaccine resources statewide and administer HAV/HBV vaccines to high-risk individuals.

Action Steps:

- By June 30, 2005, the Hepatitis C Coordinator will work with the Hepatitis C Advisory Council to provide information to CTR participants/eligible entities to increase awareness about Special Vaccine Projects.
- By December 31, 2005, the Hepatitis C Coordinator will work with the Hepatitis C Advisory Council to research additional options to fund and administer vaccinations to high-risk individuals.

Goal #3: To improve HCV surveillance statewide.

Objective #1: By June 30, 2005, the UDOH will establish linkages with health care provider and laboratories to increase HCV reporting to the UDOH.

Action Steps:

- By January 31, 2005, the UDOH, Office of Epidemiology will collaborate with the Hepatitis C Coordinator and local health departments to implement needs assessment intervention and evaluation plan to increase HCV reporting.
- By March 31, 2005, the UDOH, Office of Epidemiology will collaborate with the Hepatitis C Coordinator and local health departments to establish linkages via letters to providers and laboratories, provider educational venues, provider newsletters, the Utah Medical Association and other possible venues.
- By June 30, 2005, the UDOH, Office of Epidemiology will collaborate with the Hepatitis C Coordinator and local health departments to determine how data will guide program implementation and evaluation.

Care, Treatment & Support

Goal #1: To increase the number of HCV support groups and support services in the state of Utah.

Objective #1: By December 31, 2007, establish five HCV support groups in major regional areas throughout Utah such as Salt Lake City, Ogden, Provo/Orem, St. George, and Carbon County for HCV infected/affected individuals.

Action Steps:

- By June 30, 2005, the Hepatitis C Coordinator will work with the Hepatitis C Advisory Council and other interested individuals to identify potential support group coordinators, as well as HCV + individuals to assist/support coordinator.
- By December 31, 2005, all identified coordinators and patient support individuals will complete a training offered by the Hepatitis C Support Project that is, to the extent possible, culturally and linguistically appropriate.
- By January 30, 2005, the Hepatitis C Coordinator will research incentive/funding options for support group coordinators.
- By January 30, 2005, the Hepatitis C Coordinator will research funding options for support group supplies, materials, and other expenses.
- By December 31, 2005, the support group coordinators and patient support individuals will create a yearlong curriculum for the support groups that will be administered concurrently among all groups throughout the year. The curriculum will be created so that individuals can join/participate at any time and still benefit.

Objective #2: By December 31, 2005, create and disseminate a newsletter that coincides with the support group curriculum that is culturally and linguistically appropriate and helps to independently support and educate patients, providers, and the general public about HCV.

Action Steps:

- By January 31, 2005, the Hepatitis C Coordinator will research funding options to cover printing costs of the newsletter.
- By September 30, 2005, the Hepatitis C Coordinator will work with faculty from the universities and colleges statewide to identify and obtain interns to create and publish a Hepatitis C newsletter. The newsletter will be available in hard copy and on-line.
- By July 31, 2005, the Hepatitis C Coordinator will work with the Hepatitis C Advisory Council to identify points of distribution for information cards to give to agencies/organizations working with HCV + individuals. The card will be given at the point of client contact and will provide support group information

and the opportunity to become a part of the newsletter mailing list. The card will also be available on-line.

- By September 30, 2005, the Hepatitis C Coordinator will create and distribute the information card.
- By October 31, 2005, the Hepatitis C Coordinator will begin a mailing list that will subsequently be maintained by an intern.

Goal #2: To increase access to comprehensive medical management of HCV in Utah.

Objective #1: By Jan 1, 2006 create and implement a comprehensive HCV medical management pilot program for medically underserved individuals within community health centers (CHCs) and other sites.

Action Steps:

- By January 31, 2005, create list of sites (CHCs and other sites serving underserved populations) to send a survey to assess willingness and ability to provide HCV medical management.
- By February 28, 2005, create and disseminate survey to sites.
- By April 30, 2005, identify medical providers at sites who may be interested in and able to take leadership in developing an HCV medical management program.
- By June 2005, evaluate effectiveness of Midtown Community Health Center HCV Provider Training scheduled for September 2004.
- By Sept 30, 2005, based on evaluation, create a model that can be applied to new sites. (Create protocols, cost evaluation, etc.)
- By Jan 1, 2006, implement model at selected sites.
- By December 31, 2006, establish ongoing evaluation measures for model at selected sites.

Objective #2: Upon evaluation of pilot program, expand program to additional sites.

Objective #3: By December 31, 2007, develop, implement and evaluate a comprehensive medical management hepatitis C needs assessment for private, for-profit health care providers.

Action Steps:

- By June 30, 2006, the Hepatitis C Coordinator will work with the Hepatitis C Advisory Council and other interested parties to identify medical providers.
- By September 30, 2006, the Hepatitis C Coordinator will work with the Hepatitis C Advisory Council to create need assessment protocols.
- By April 30, 2007, the Hepatitis C Coordinator and other interested parties will conduct the needs assessment among private, for-profit health care providers.

SECTION C

MONITORING OUR PROGRESS

Evaluation is one of the fundamental elements of the Utah Viral Hepatitis Comprehensive Plan. The Utah Department of Health, Bureau of Communicable Disease Control, has the primary responsibility for monitoring the progress of the Utah Viral Hepatitis Comprehensive Plan's implementation. The UDOH will monitor the progress toward achievement of the goals and objectives, continue to gather information and update the Utah Viral Hepatitis Comprehensive Plan as needed, and evaluate its own process during the creation of the Utah Viral Hepatitis Comprehensive Plan and as the Plan is implemented during the next year.

The following sections describe how monitoring will take place in four areas:

1) Achieving goals and objectives;
2) Monitoring changes in the epidemic, clients service needs, and service availability;
3) Monitoring changes in legislation, technology, and delivery systems; and
4) Revisions to the Utah Viral Hepatitis Comprehensive Plan.

I. Achieving Goals and Objectives

The Utah Department of Health, Bureau of Communicable Disease Control will periodically review the status of each objective to ensure that all goals are being achieved in a timely manner. If problems arise in the meeting of goals and objectives or if they are considered to be unsuitable/unworkable, they will be revised and rewritten and incorporated into the Utah Viral Hepatitis Comprehensive Plan.

In the future, a progress report of the goals and objectives will be included in this section of the Utah Viral Hepatitis Comprehensive Plan.

II. Monitoring Changes in the Epidemic, Clients' Service Needs, and Service Availability

Epidemic

The Office Of Epidemiology at the Utah Department of Health, Bureau of Communicable Disease Control, monitors cases of hepatitis infection on a regular basis and epidemiologic trends are monitored annually. One of the goals of this department is to develop a usable registry for chronic HBV and HCV.

The Epidemic will continuously be monitored by reviewing surveillance data and other demographic information as available. From this information, the Utah Viral Hepatitis Comprehensive Plan will be periodically modified as the epidemic continues to change.

Clients' Service Needs

One of the goals for Hepatitis Treatment and Care is to conduct a comprehensive needs assessment of providers and consumers. Once data are on hand from these assessments, recommendations can be made to the Utah Department of Health and modifications to the Utah Viral Hepatitis Comprehensive Plan can be completed as needed.

Service Availability

Specific goals and objectives have been designed to improve the availability of services to consumers. A Resource Inventory for Viral Hepatitis will be developed and Provider evaluations will be implemented to assess the delivery system.

III. Monitoring Changes in Legislation, Technology, and Service Delivery Systems

Legislation

The funds available for viral hepatitis prevention, treatment & care, analysis, and surveillance are inadequate when compared to the needs of the communities within our state. Any changes that increase or decrease funds for viral hepatitis on a federal, state and/or local level will have significant impact upon the service delivery system. Changes in legislation that affect funding will be periodically reviewed.

Technology/Development

Advances in treatment and medications have an impact on the quality and quantity of life for people living with hepatitis and for hepatitis prevention efforts. As advances are made, periodic reviews will be completed.

Service Delivery Systems

Changes in the delivery of services in the two main areas of the state, the Wasatch Front and rural/outlying counties will have an impact upon the health of individuals with hepatitis accessing services in those areas. Service delivery systems will be periodically monitored and recommendations will be made for cost-effective improvements.

IV. Revisions to the Utah Viral Hepatitis Comprehensive Plan

Role of the Viral Hepatitis Planning Grant Steering Committee

The Steering Committee will continue to review, evaluate and make revisions to the Utah Viral Hepatitis Comprehensive Plan, utilizing the information gathered under subcategories I, II, and III above. Additional subcommittees may be formed in the future to divide the remaining work, ensuring that all elements of the comprehensive plan are fulfilled.

Role of the Utah Department of Health, Bureau of Communicable Disease Control

The Utah Department of Health, Bureau of Communicable Disease Control, will continue to provide the following assistance to the Viral Hepatitis Steering Committee:

- Staff assistance for the logistical and clerical operations of the Viral Hepatitis Steering Committee and its subcommittees.
- Technical expertise.
- Staff assistance for yearly revisions to the Utah Viral Hepatitis Comprehensive Plan.
- Provision of epidemiologic, demographic, and needs assessment information as needed by the Viral Hepatitis Steering Committee for making decisions.

This section has established a foundation about monitoring and evaluating the planning process, as well as the Utah Viral Hepatitis Comprehensive Plan itself. Through

evaluation, achievements and weaknesses will be identified as the groups work together to meet the goals and objectives of this Utah Viral Hepatitis Comprehensive Plan.

APPENDIX A

Hepatitis A **Fact Sheet**	
SIGNS & SYMPTOMS	• Jaundice • Fatigue • Abdominal pain • Loss of appetite • Nausea • Diarrhea • Fever Adults will have signs and symptoms more often than children.
CAUSE	Hepatitis A Virus (HAV)
LONG-TERM EFFECTS	• There is no chronic (long-term) infection. • Once you have had hepatitis A, you cannot get it again. • About 15% of people infected with HAV will have prolonged or relapsing symptoms over a 6-9 month period.
TRANSMISSION	• HAV is found in the stool (feces) of persons with hepatitis A. • HAV is usually spread from person to person by putting something in the mouth (even though it may look clean) that has been contaminated with the stool of a person with hepatitis A.
PERSONS AT RISK OF INFECTION	• Household contacts of infected persons. • Sex contacts of infected persons. • Persons, especially children, living in areas with increased rates of hepatitis A during the baseline period from 1987-1997. • Persons traveling to countries where hepatitis A is common. • Men who have sex with men. • Injecting and non-injecting drug users.
PREVENTION	• Hepatitis A vaccine is the best protection. • Short-term protection against hepatitis A is available from immune globulin. It can be given before and within 2 weeks after coming in contact with HAV. • Always wash your hands with soap and water after using the bathroom, changing a diaper, and before preparing and eating food.
VACCINE RECOMMENDATIONS	Vaccine is recommended for the following persons 2 years of age and older: • Travelers to areas with increased rates of hepatitis A. • Men who have sex with men. • Injecting and non-injecting drug users. • Persons with clotting-factor disorders (e.g. hemophilia) • Persons with chronic liver disease. • Children living in areas with increased rates of hepatitis A during the baseline period from 1987-1997.
TRENDS & STATISTICS	• Occurs in epidemics both nationwide and in communities. • During epidemic years, the number of reported cases reached 35,000. • In the late 1990's, hepatitis A vaccine was more widely used in the community and the number of cases reached historic lows. • One-third of Americans had evidence of past infection (immunity).

www.cdc.gov/hepatitis
1-888-4HEP-CDC

APPENDIX B

Hepatitis B **Fact Sheet**	
SIGNS & SYMPTOMS	• Jaundice • Fatigue • Abdominal pain • Loss of appetite • Nausea, vomiting • Joint pain About 30% of persons have no signs or symptoms. Signs and symptoms are less common in children than adults.
CAUSE	Hepatitis B virus (HBV).
LONG-TERM EFFECTS WITHOUT VACCINATION	Chronic infection occurs in: • 90% of infants infected at birth. • 30% of children infected at age 1-5 years. • 6% of persons infected after age 5 years. Death from chronic liver disease occurs in: • 15-25% of chronically infected persons.
TRANSMISSION	• Occurs when blood or body fluids from an infected person enters the body of a person who is not immune. • HBV is spread through having sex with an infected person without using a condom, sharing needles or "works" when "shooting" drugs, through needlesticks or sharps exposures on the job, or from an infected mother to her baby during birth. Persons at risk for HBV infection might also be at risk for infection with hepatitis C virus (HCV) or HIV.
RISK GROUPS	• Persons with multiple sex partners or diagnosis of a sexually transmitted disease. • Men who have sex with men. • Sex contacts of infected persons. • Injection drug users. • Household contacts of chronically infected persons. • Infants born to infected mothers. • Infants/children of immigrants from areas with high rates of HBV infection. • Health care workers and public safety workers. • Hemodialysis patients.
PREVENTION	• Hepatitis B vaccine is the best protection. • If you are having sex, but not with one steady partner, use latex condoms* correctly every time you have sex. • If you are pregnant, you should get a blood test for Hepatitis B. Infants born to HBV-infected mothers should be given H-BIG (hepatitis B immune globulin) and vaccine within 12 hours after birth. • Do not shoot drugs. If you shoot drugs, stop and get into a treatment program. If you can't stop, never share needles, syringes, water or "works" and get vaccinated against hepatitis A and B. • Do not share personal care items that might have blood on them (razors, toothbrushes). • Consider the risks if you are thinking about getting a tattoo or body piercing. You might get infected if the tools have someone else's blood on them or if the artist or piercer does not follow good health practices. • If you have or had hepatitis B, do not donate blood, organs or tissue. • If you are a health care or public safety worker, get vaccinated against hepatitis B, and always follow routine barrier precautions and safely handle needles and other sharps. • Hepatitis B vaccine available since 1982.

VACCINE RECOMMENDATIONS	• Routine vaccination of 0-18 year olds. • Vaccination of risk groups of all ages (see section on risk groups).
TREATMENT & MEDICAL MANAGEMENT	• HBV infected persons should be evaluated by their doctor for liver disease. • Adefovir dipivoxil, alpha interferon and lamivudine are three grugs licensed for the treatment of persons with chronic hepatitis B. • These drugs should not be used by pregnant women. • Drinking alcohol can make your liver disease worse.
TRENDS & STATISTICS	• Number of new infections per year has declined from an estimated 260,000 in the 1980's to about 78,000 in 2001. • Highest rate of disease occurs in 20-49 year olds. • Greatest decline has happened among children and adolescents due to routine hepatitis B vaccination. • Estimated 1.25 million chronically infected Americans, of whom 20-30% acquired their infection in childhood.

* The efficacy of latex condoms in preventing infection with HBV is unknown, but their proper use may reduce transmission.

www.cdc.gov/hepatitis
1-888-4HEP-CDC

APPENDIX C

<table>
<tr><td>Hepatitis C
Fact Sheet</td><td></td></tr>
<tr><td>SIGNS & SYMPTOMS</td><td>• Jaundice
• Fatigue
• Dark urine
• Abdominal pain
• Loss of appetite
• Nausea
80% of persons have no signs or symptoms.</td></tr>
<tr><td>CAUSE</td><td>Hepatitis C virus (HCV)</td></tr>
<tr><td>LONG-TERM EFFECTS</td><td>• Chronic infection: 75-85% of infected persons.
• Chronic liver disease: 70% of chronically infected persons.
• Deaths from chronic liver disease: 1-5% of infected persons may die.
• Leading indication for liver transplant.</td></tr>
<tr><td>TRANSMISSION</td><td>• Occurs when blood or body fluids from an infected person enters the body of a person who is not infected.
• HCV is spread through sharing needles or “works” when “shooting” drugs, through needlesticks or sharps exposures on the job, or from an infected mother to her baby during birth.</td></tr>
<tr><td>RECOMMENDATIONS FOR TESTING BASED ON RISK FOR HCV INFECTION</td><td>Persons at risk for HCV infection might also be at risk for infection with hepatitis B virus (HBV) or HIV.

Recommendations for Testing Based on Risk for HCV Infection

<table>
<tr><th>PERSONS</th><th>RISK OF INFECTION</th><th>TESTING RECOMMENDED?</th></tr>
<tr><td>Injecting drug users</td><td>High</td><td>Yes</td></tr>
<tr><td>Recipients of clotting factors made before 1987</td><td>High</td><td>Yes</td></tr>
<tr><td>Hemodialysis patients</td><td>Intermediate</td><td>Yes</td></tr>
<tr><td>Recipients of blood and/or solid organs before 1992</td><td>Intermediate</td><td>Yes</td></tr>
<tr><td>People with undiagnosed liver problems</td><td>Intermediate</td><td>Yes</td></tr>
<tr><td>Infants born to infected mothers</td><td>Intermediate</td><td>After 12-18 months old</td></tr>
<tr><td>Healthcare/public safety workers</td><td>Low</td><td>Only after known exposure</td></tr>
<tr><td>People having sex with multiple partners</td><td>Low</td><td>No*</td></tr>
<tr><td>People having sex with an infected steady partner</td><td>Low</td><td>No*</td></tr>
</table>
* Anyone who wants to get tested should ask their doctor.</td></tr>
<tr><td>PREVENTION</td><td>• There is no vaccine to prevent Hepatitis C.
• Do not shoot drugs. If you shoot drugs, stop and get into a treatment program. If you can’t stop, never share needles, syringes, water or “works” and get vaccinated against hepatitis A and B.
• Do not share personal care items that might have blood on them (razors, toothbrushes).
• If you are a health care or public safety worker, always follow routine barrier precautions and safely handle needles and other sharps; get vaccinated against hepatitis B.
• Consider the risks if you are thinking about getting a tattoo or body piercing. You might get infected if the tools have someone else’s blood on them or if the artist or piercer does not follow good health practices.
• HCV can be spread by sex, but this is very rare. If you are having sex with more than one steady sex partner, use latex condoms* correctly and every time to prevent the</td></tr>
</table>

	spread of sexually transmitted diseases. You should also get vaccinated against hepatitis B. • If you are HCV positive, do not donate blood, organs or tissue.
TREATMENT & MEDICAL MANAGEMENT	• HCV positive persons should be evaluated by their doctor for liver disease. • Interferon and ribavirin are two drugs licensed for the treatment of persons with chronic hepatitis C. • Interferon can be taken alone or in combination with ribavirin. Combination therapy, using pegylated interferon and ribavirin, is currently the treatment of choice. • Combination therapy can get rid of the virus in up to 5 out of 10 persons for genotype 1 and in up to 8 out of 10 persons for genotype 2 and 3. • Drinking alcohol can make your liver disease worse.
TRENDS & STATISTICS	• Number of new infections per year has declined from an average of 240,000 in the late 1980's to about 25,000 in 2001. • Most infections are due to illegal injection drug use. • Transfusion-associated cases occurred prior to blood donor screening; now occurs less than one per million transfused unit of blood. • Estimated 3.9 million (1.8%) Americans have been infected with HCV, of whom 2.7 million are chronically infected.

* The efficacy of latex condoms in preventing infection with HCV is unknown, but their proper use may reduce transmission.

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1-888-4HEP-CDC